Rock-Cleavage.—Daubrée has extended his studies of molecular mechanics to various features of geological structure. In the geometrical regularity which is observable in fractures produced by torsion, and slipping or shearing, he finds close analogies to the various joints, faults, schists, and minor cleavages which pervade the earth's crust.—*Comptes Rendus.* C.

Transverse Vibrations of Liquids.—M. P. Dubois has conducted some experiments upon sand, in Jamin's laboratory, substituting a liquid for sand as a means of making nodal divisions. Tinging water with vermilion, he obtains clearly marked equidistant stains, which furnish simple and satisfactory demonstrations of important acoustic laws.—*Comptes Rendus.* C.

Instantaneous Action in the Telephone.—Du Moncel attributes the vibrations of the magnetic nucleus in the telephone to the contractions and dilations of the magnetic molecules, and thinks his hypothesis is confirmed by the modifications that have been observed in the length of a bar of iron, when subjected to powerful magnetic action. The greater efficacy of induced currents in telephonic transmissions, he believes to be due to their instantaneousness, thus introducing an element like that which La Place found in the action of gravity. According to the researches of De la Rue, the currents produced by the vibrations of the voice, in ordinary telephones, represent, in intensity, those of a Daniell element, traversing a resistance of a hundred megohms, or ten million kilometres of telegraphic wire of four millimetres diameter.—*Comptes Rendus.* C.

Phosphorescence and Fluorescence.—Favé attributes both of these phenomena to "the reciprocal action of material vibrations and æthereal waves." Even ordinary phosphorus shines in a vacuum, in nitrogen, and in hydrogen, when there is no evidence of any chemical action. But when the phosphoric vapor reaches a certain density this light ceases. This furnishes one of the simplest examples of a vapor absorbing the waves which are produced by the same body when in a solid state. Such an extension of Kirchhoff's law to solid bodies is confirmed by the nitrate of uranium, which gives eight brilliant phosphorescent lines, each corresponding to an absorption line, when a spectrum is made to traverse the salt.—*Comptes Rendus.* C.